

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 July 2005 (28.07.2005)

PCT

(10) International Publication Number
WO 2005/068648 A1

(51) International Patent Classification⁷: C12Q 1/68

(21) International Application Number:
PCT/EP2005/000231

(22) International Filing Date: 10 January 2005 (10.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10 2004 002 257.7 9 January 2004 (09.01.2004) DE

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR INVESTIGATING CYTOSINE METHYLATION IN DNA BY MEANS OF DNA REPAIR ENZYMES

(57) Abstract: The following invention concerns a method for investigating cytosine methylation by means of DNA repair enzymes. Here, the DNA is first converted so that unmethylated cytosines are converted to uracil, while 5-methylcytosine remains unchanged. Then the DNA is hybridized to oligonucleotides, whereby hybrids will be formed with or without erroneous base pairings, in each case depending on the methylation status of the DNA. Following this, the erroneously paired hybrids will be cleaved by repair enzymes. Then the methylation status of the DNA can be determined in different ways. The method according to the invention is particularly suitable for the diagnosis and prognosis of cancer disorders and other diseases associated with a change of the methylation status as well as for predicting undesired drug effects.



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